3.12 MINERAL MATERIALS

Mineral materials include common varieties of sand, gravel, stone, pumice, pumicite, cinders, clay and other similar materials that are of widespread occurrence and do not have special value. The Forest Service objective for mineral material management is to meet the demand for mineral materials consistent with the management of other surface resources. Motorized access is typically necessary for the transportation of mineral material products.

3.12.1 SCOPE OF ANALYSIS AND ANALYSIS METHODS

The scope of the analysis includes the proposed changes to the existing motorized /mechanical transport use on the Bitterroot National Forest, and the effects on access to currently-available mineral material sites on the Forest. The planned changes in designation status of roads currently providing access to mineral material sites were analyzed as proposed in the Travel Management Planning Project alternatives to determine whether access would be available to those sites. The analysis area for the Mineral Materials resource is the portion of the Bitterroot National Forest outside of Designated Wilderness. Proposed changes to existing motorized routes were analyzed in relation to currently available mineral material sites.

3.12.2 REGULATORY FRAMEWORK

Regulatory direction relevant to the Travel Management Planning Project, as it affects mineral materials resources, includes regulations at 36 CFR 228, Subpart C, which establish the policy and standards for the disposal of mineral materials. The regulations also set forth standards for the protection of National Forest System lands affected by mineral material activities. The Materials Act of 1947 (30 U.S.C. 601 et seq.) and the Surface Resources Act of 1955 (PL 167) provide the authority for disposal of mineral materials.

3.12.3 AFFECTED ENVIRONMENT

Currently there are three mineral material sites authorized to provide landscaping rock, and one site providing gravel, for public use on the Bitterroot National Forest. Landscaping rock sites are the Ambrose Rock Community Collecting Area, located in T9, R18W, Sec. 32, accessed by Roads #428, #1339, and #13128, on the Stevensville Ranger District; Upper Burnt Fork, located in T7N, R18W, Sec. 4, accessed by Road #312, on the Stevensville Ranger District; and Rail Road Creek, located in T5N, R18W, Sec. 28, accessed by Road #711, on the Darby Ranger District. The Alta gravel pit is located in T3S, R22W, Sec. 2, accessed by Road #5685, on the West Fork Ranger District. Nine other mineral material sites providing gravel, crushed aggregate, or rock have been used by the Forest Service for administrative use, and one other site (Lost Horse Quarry) has been used by the Forest Service and Ravalli County Road Department as a source for riprap and gravel.

3.12.4 ENVIRONMENTAL CONSEQUENCES

Summer

A. Effects Common to All Action Alternatives

There are no effects common to all action alternatives

B. Direct and Indirect Effects

Alternative 1

Alternative 1 would affect access to the Upper Burnt Fork Collecting Area by closing, to motorized use yearlong, the portion of Road #312 that accesses the area. The Upper Burnt Fork Collecting Area is a popular site; approximately 50-60 percent of the volume of rocks collected by the public on the Bitterroot

National Forest comes from this site. Closing access would increase public use of the Ambrose Rock Community and Rail Road Creek Collecting Areas.

Alternative 2 - No Action

The existing effects of roads and trails on mineral materials are described in Section 3.12.3 (Affected Environment).

Alternative 2 would not affect access to mineral material sites, because no change in current access is proposed.

Alternative 3

Alternative 3 would institute seasonal use (May 2 – November 30) for motorized use on the portion of Road #312 that accesses the Upper Burnt Fork Collecting Area. However, **Alternative 3** would have no effect on public access to the collecting area, because the road would be open to all forest users in the summer season, which is when rock collecting occurs. All other existing mineral material sites would not be affected.

Alternative 4

Alternative 4 would affect access to the Upper Burnt Fork Collecting Area by closing, to motorized use yearlong, the portion of Road #312 that accesses the area. The Upper Burnt Fork Collecting Area is a popular site; approximately 50-60 percent of the volume of rocks collected by the public on the Bitterroot National Forest comes from this site. Closing the access would increase public use of the Ambrose Rock Community and Rail Road Creek Collecting Areas. Additionally, **Alternative 4** would close the portion of Road #428 from MP 7.3-9.1 to all motorized use yearlong based on its adverse impact on fish-bearing streams. This would increase the time required to drive to the Ambrose Rock Community Collecting Area, as the area would still be accessible via Sawmill Saddle. **Alternative 4** would also affect access to the Alta Gravel Pit by closing Road #5685 from MP 7.5-21.50 to use by OHVs yearlong.

Over-Snow

Over-snow vehicle use would have no effect on the availability of, and access to, mineral material sites. Permits are only issued when roads are passable; most would be inaccessible during winter months when they are snow covered. No mineral materials effects are attributed to over-snow vehicle use, and they will not be discussed further. There would be no difference between alternatives for this activity.

Summary

Alternative 4 would have the greatest impact on mineral materials by proposing to close motorized access to rock collecting areas and a gravel pit, followed by **Alternatives 1, 3, and 2**.

C. Cumulative Effects

Geographic Boundaries

The defined cumulative effects analysis area for mineral materials is the same as the project area; the portion of the Bitterroot National Forest outside of Designated Wilderness. This analysis area is appropriate to analyze any incremental effects from the actions of this project, in combination with past, present, and reasonably foreseeable activities, because effects of implementing travel planning decisions on the Bitterroot National Forest would be negligible to mineral materials outside this analysis area.

Activities Within the Cumulative Effects Analysis Area

Past actions have contributed to the existing condition for mineral materials, which is described in Section 3.12.3 (Affected Environment). The construction and continued operation of National Forest System roads allows for public access to mineral material sites on the Forest.

Appendix A to the FEIS describes past, present, and reasonably foreseeable activities which, when combined with the activities proposed in the Travel Management Planning Project, could potentially contribute to cumulative effects to mineral materials.

Summer

Most forest activities have no cumulative effect on mineral materials for the following reasons:

- The activity's location isolates it from mineral material sites
- The activity's disturbance is too small or is a one-time occurrence to produce an effect

Examples of forest activities, when carried out consistent with existing regulations, result in no cumulative effects to the Mineral Materials resource which includes:

- Personal Use Firewood Cutting
- Personal Use Christmas Tree Harvesting
- Special Uses\Permits
- Public Use
- Timber Harvest, Prescribed Burning, and Associated Activities
- Wildfire suppression
- Invasive Plants Management
- Cattle Grazing
- Activities on State and Private Land
- Wildfires
- Natural Disturbance Events

There are other forest activities which could result in cumulative effects to the Mineral Materials resource:

Road and Trail Management

Closures for routine maintenance, including road blading, gate repair/replacement, cleaning ditches and culverts, brushing, and debris removal, on roads which access mineral materials sites could result in unauthorized collection of mineral materials from undesignated sites if other rock collecting areas are not identified.

Over-Snow

During winter, most roads used by motorized vehicles for accessing the mineral materials sites on the Forest would most likely be snow-covered, as well as the mineral material sites themselves. Therefore, there would be no cumulative effects to the Mineral Materials resource from the past, present, and reasonably foreseeable activities including personal use firewood cutting, personal use Christmas Tree harvesting, cattle grazing, wildfire suppression, public use, special uses\permits, road and trail management, invasive plants management, timber harvest, prescribed burning, and associated activities, and activities on state and private land.

Cumulative Effects from the Implementation of the Alternatives

Alternative 1

Most of the above listed present and reasonably foreseeable activities would have no cumulative effects on mineral materials, in combination with the activities proposed in the Travel Management Planning Project during the summer and winter months. However, road management and trail management could have negligible cumulative effects during the summer months, including increasing public use of collecting areas not restricted by motorized access, and contributing to unauthorized collection from undesignated sites.

Alternative 2

Most of the above listed present and reasonably foreseeable activities would have no cumulative effects on mineral materials, in combination with the activities proposed in the Travel Management Planning Project during the summer and winter months. However, road management and trail management could have negligible cumulative effects during the summer months, including increasing public use of collecting areas not restricted by motorized access, and contributing to unauthorized collection from undesignated sites.

Alternative 3

Most of the above listed present and reasonably foreseeable activities would have no cumulative effects on mineral materials, in combination with the activities proposed in the Travel Management Planning Project during the summer and winter months. However, road management and trail management could have negligible effects during the summer months, including increasing public use of collecting areas not restricted by motorized access, and contributing to unauthorized collection from undesignated sites.

Alternative 4

Most of the above listed present and reasonably foreseeable activities would have no cumulative effects on mineral materials, in combination with the activities proposed in the Travel Management Planning Project during the summer and winter months. However, road management and trail management could have negligible effects during the summer months, including increasing public use of collecting areas not restricted by motorized access, and contributing to unauthorized collection from undesignated sites.

Cumulative Effects Finding

There would be no cumulative effects to mineral materials from past, ongoing, and reasonably foreseeable activities including personal use firewood cutting; personal use; Christmas tree harvesting; special uses\permits; timber harvest and associated activities; invasive plants management; cattle grazing; wildfire suppression; and activities on state and private land actions during the summer and winter months in combination with the activities proposed in **Alternatives 1, 2, 3, and 4**.

There could be minor cumulative effects to mineral materials from ongoing and reasonably foreseeable activities associated with road management in association with the activities proposed in **Alternatives 1, 2, 3, and 4**.

3.12.5 CONSISTENCY WITH FOREST PLAN, LAWS, AND REGULATIONS

The Travel Management Planning Project is essentially a planning effort, and does not create new ground disturbance. As such, consistency with existing regulation is a matter of incorporating various concerns into the planning effort. This has been done in all phases of the project.

A. Bitterroot National Forest Plan

Consistency with the Bitterroot National Forest Plan forest-wide resource and management area standards applicable to mineral materials would be accomplished the following ways:

Forest-wide Management Standards

Identify common variety mineral sites that are suitable for construction aggregate and compatible with management area goals and standards (USDA Forest Service 1987a, II-26)

How addressed:

The Alta gravel pit is located in T3S, R22W, Sec. 2, accessed by Road #5685, on the West Fork Ranger District.

Coordinate transportation system with mineral development (USDA Forest Service 1987a, II-26).

How addressed:

Public access to the mineral materials sites located on the Bitterroot National Forest was considered in the development of the Travel Management Planning Project.

Alternative 4 would not be in compliance with this standard as it would prevent motorized access to the Upper Burnt Fork collecting area. Additionally, **Alternative 4** would also prevent motorized access to the Alta Gravel Pit, as well as increasing the time required to access the Ambrose Rock Community Collecting Area.

All other alternatives would be in compliance with the applicable forest-wide management Forest Plan standards.

Management Area Standards

There are no Forest Plan management areas standards specific to mineral materials for MAs 1, 2, 3a, 3b, 3c, 5, 6, 8a, 8b, 9, 10, and 11a. The standards pertain to mineral exploration and development, and oil and gas leases.

B. Forest Service Regulation

36 CFR 228, Subpart C §228.43 Policy regarding disposal

(a) *General*. Forest Service policy is to make mineral materials on National Forest lands available to the public and to local, State, and Federal government agencies where reasonable protection of, or mitigation of effects on, other resources in assured, and where removal is not prohibited.

How addressed:

All alternatives would be in compliance with Forest Service regulation 36 CFR 228, Subpart C §228.43 by allowing the public motorized access to mineral materials sites, and for making mineral materials available to the public.

All alternatives would be compliance with the Forest Plan, the Materials Act of 1947 (30 U.S.C. 601 et seq.) and the Surface Resources Act of 1955, and Forest Service Regulations.

All alternatives would be in compliance with applicable Forest Service regulations.

3.12.6 CHANGES BETWEEN DRAFT EIS AND FINAL EIS

- Minor grammatical edits were made to correct typographical errors and improve readability.
- Section 3.12.3 (Affected Environment) was edited to include the Ambrose Rock Community Collecting Area.
- Section 3.12.4 (Effects Common to All Action Alternatives). Discussion of effects associated with over-snow vehicle use was added.
- Section 3.12.4 B (Direct and Indirect Effects). Road #5685, from MP 7.5-21.50, would be closed to use by OHVs in Alternative 4. Road #428, from MP 7.3-9.1, would be closed to all motorized use in Alternative 4.
- Section 3.12.4 C (Cumulative Effects). Effects associated with over-snow vehicle use were added.
- Section 3.12.5 (Consistency with Forest Plan, Laws, and Regulations). Rewritten to provide clarity and organization.